

# FramingHAM Circuit

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## Nostalgia Night

Do you remember when you could hardly wait to save up for your first TR-4; Or, how about a real Collins 75-A2? Or, do you remember what happened at your first Field Day or meeting?

If you're like most of us, memory of things past is exciting and interesting, especially in this best of all hobbies, ham radio. Well, at the October meeting we'll be jogging more than a few collective memories as Club Historian Marjie Stern, KA1HIA, has put together a meeting that highlights things from our archives and some vintage equipment that FARA recently acquired from the estate of W1RVA.

So, if you are interested in seeing the rigs that excited you a few years back, or if you want to know what happened a few years ago, come on over to the meeting, Thursday, Oct 5, and check things out.

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**YOU CAN BE AN**

**OFFICIAL FLEA?**

**HELP OCT. 15**

**SEE LEW, K1AZE**

## QRN Corner

By Dick Landau, W1IBN

FARA is a club, not just a collection of people who get together once a month to eat donuts. We care for each other and are willing and anxious to help each other. Remember this, it's important. We help everyone as best we can.

For instance, let's say you just got your license and you're sitting at home wondering what to next. If so, then grab the phone and call someone. If you're not sure who to call, call me:

home: 877-3370 (before 10pm)  
work: 467-7041

I'll find you someone to help you get started. Whether it's buying your first rig, making your first QSO, or rigging your first antenna; we have plenty of members who'll be thrilled to help.

Newcomers or oldtimers alike, we're there to help. Picture this: it's Saturday AM and with visions of rare DX dancing in your head, you fire up the old rig...only to find your SWR on 20M is 6:1. Nothing you try seems to help. Pick up the phone and give me a call. We'll get you some help.

Or, how about this one: it's Sunday AM and with visions of rare DX dancing in your head, you fire up the rig. Nothing seems to be working the way it should. You look out the window and find, to

your horror, your 80-foot tower is a pile of twisted metal. You've just got to back on the air this morning because an important DX contest is about to start.

You pick up the phone...HOLD IT! Save yourself the trouble of giving me a call, better give the "big guy" upstairs a quick LL. He's the only one likely to get you back on the air by contest time.

Of course, given a more reasonable schedule, we'll be happy give you a hand getting your antenna back up. We take being a member of a "real club" seriously...

If you need us, please call. If you need help, let me know at a meeting or Saturday morning at the club station.

Please call, let me know at a meeting, or Sat AM at the station, when you need help.

Being a member of a "real club" is a give and take thing. Once in a while, we may ask if you can lend a hand. If you can, then terrific, if you can't, well, maybe another time, but please don't worry about it; we don't keep score.

We just want to help, learn from, and enjoy each other!!

73,  
Dick  
"It's Been Nice"

## Meeting Happenings

By

Henry Lee, III, KB1PE, Club Secretary  
The September meeting of FARA was called to order at 7:31 p.m. by President Dick Landau, W1IBN. Following members' introductions, the following items were discussed:

1. **Class Registration:** Dick, W1IBN, announced it would take place on Saturday, Sept. 9.
2. **Sunday Brunch:** Cheryl Landau, KA1SYL, opened a discussion on location, and it was decided that the first brunch would be on Sept. 24 at the Deli in Shopper's World, Framingham.
3. **Scholarship Committee:** George Blakeslee, N1GB, announced the awards. Congrats are also in order, as he and Carolyn became the parents of their third daughter in July.
4. **Fall Flea Market:** Flea Market Chairman Lew Nyman, K1AZE, announced that setup for the Flea Market would be on Sunday, Oct. 15, the day of the event, at 6:30 a.m. Lew passed around a signup sheet. Jon Weiner, K1VVC, announced that no sellers would be able to bring gear into the building prior to 8 a.m.
5. **Treasurer's Report:** Treasurer Bob Gettys, N1BRM, gave a report which was accepted by the membership. He said he would try to have computer-printed handouts at the next meeting outlining club spending.
6. **Events to "spice up" FARA meetings:** Dick, W1IBN, announced a "Nostalgia Night" to occur at the October meeting and a "hints and kinks and assorted silliness" session to occur at a future meeting.
7. **Public Service Event:** Vice President Wayne Ledder, W1EWL, announced that Frank, W1XA, is looking for help with the Blackstone Parade on Sept. 30.

The business meeting adjourned at 8:15 p.m. for an interesting slide presentation by Ken Wolfe, K1EA, on his DX station and antenna system.

The presentation ended at 9:15 p.m. for refreshments.

Oct. 5, Meeting  
Oct. 15, Fleas on Parade  
Oct. 23, Board meeting  
Nov. 2, Hints and Kinks

Want to tell the board what to do? Well, you can by attending a board meeting. Meetings are open to club members. One thing, let Dick know you're coming. The meetings are at his house.

Get your best hint or kink ready for November's meeting. Best one gets my pepperoni.

## Swap & Shop

For Sale: Complete Kenwood TS-820S Station. Mint condx. Package includes: Kenwood speaker and mic. Bencher paddle with memory keyer. 1 set of Kenwood earphones. Price: \$600. Sid Geller, KA1RQK, 872-4737

For Sale: 1 mono display adapter: IBM: Asking \$45.23; 1 color graphics display adapter: AST, Asking: \$64.47, 1 daisywheel typewriter with serial computer interface. Asking \$137.22. Marc, N1BLH, 467-6585. Days.

## PRODUCT REVIEW: ICOM IC-228H 2M TRANSCEIVER

by Bob Parnass, AJ9S

My Icom IC28A performed very well, and giving it to my wife afforded me the opportunity to buy another 2 meter radio.

What do I look for in a 2 meter transceiver? Being a scanner enthusiast, I look for wide frequency coverage on receive, and reasonable scanning facilities. Reliability and ease of obtaining schematics and parts are important, and Icom, Kenwood, and Yaesu score well here.

I prefer 25-watt radios to 45-watt radios for a few reasons:

1. I believe manufacturers overrate their transmitters' power specifications. Most models use hybrid modules for the driver/final amplifier stage. As a recent QEX article points out, the hybrid modules are only 25-50 percent efficient, which means the bulk of the power is dissipated in the form of heat.

The heat sinks on today's radios are just not big enough to dissipate the kind of heat developed during my typical QSO (conversation). The heat

sink on my old 25-watt Motorola Metrum (TM) never got nearly as hot at the heat sinks on late model 25-watt Japanese radios.

My 25-watt Kenwood TR-7800 and IC28A became very hot during QSOs. Pity those who bought Kenwood's "45-watt" TM-221A transceiver.

It's not until they read the owner's manual that they learned Kenwood recommends against transmitting for more than 1 minute out of 3.

Heat shortens the already finite life of the hybrid modules, and I've been forced to replace these modules on various radios, to the tune of over \$55 apiece (not including my labor).

2. It's easier to find power supplies for 25-watt radios, because they require only 6 - 7 amperes, versus 9 - 10 amperes for their 45-watt counterparts. The smaller power supplies are less expensive and are easier to find surplus.

3. Signals from 25-watt transmitters are almost as strong as those from 45-watt radios.

The IC228A/H series is Icom's replacement for the IC28A/H two meter radios. The tradition of offering two models at different transmitter power levels continues, with the 25-watt IC228A and 45-watt IC228H.

The IC228 contains a single VFO, and 20 memory channels. All the memory channels behave the same, contrasted with some Kenwood designs which limit the flexibility of certain memory channels, while permitting special operations with others. Each IC228 memory channel

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can store receive frequency, CTCSS tone, transmit frequency offset, and scan list lockout.

Unlike Yaesu radios, the IC228 comes equipped with a synthesized CTCSS (PLTM) tone encoder, which is almost a necessity for using repeaters in the Chicagoland area. Any one of 32 tone frequencies can be selected from the front panel, and associated with a memory channel or VFO.

Repeater offsets are selectable from 5 KHz through 10 MHz, and can be stored in memory. You could conceivably store 20 different repeater frequencies in the IC228, each with a different offset and tone.

I wanted the 25-watt IC228A, but only IC228H models were available at the time. I'm glad I bought the IC228H high power model, because a internal potentiometer made it easy to reduce power output from 45 watts down to 25 watt. The large heat sink affords extra cooling capacity, and the final amplifier should last longer. Even so, the heat sink becomes too hot to hold during a moderately long QSO! Heat is eventually transferred from the heat sink to the entire radio case, making the entire radio "untouchable."

The major changes in IC228 circuitry from the IC28 design involve the microprocessor. The RF circuits remain similar, using the same transistor lineup in the transmitter stages and the now familiar Motorola MC3357 IF detector/squelch chip popular in scanners.

Icom took cues from the Kenwood TM2530 series to improve the LCD display panel and make the front panel controls visible in the dark. The display on the IC228 makes use of colored backgrounds for various fields, and is easier to read than the display in the IC28.

Unlike the IC28, the IC228 emits a beep tone each time a key is

depressed. Although some people find this feature annoying in walkie-talkies, the beeps make it more convenient to operate the IC228 while driving. Icom recognizes freedom of choice, and permits the user to disable the beep.

The volume, squelch, and tuning knobs, as well as several buttons, are now backlit - an improvement over the IC28. The IC28 contained a photocell which automatically varied the LCD backlighting with changing ambient light levels, however the newer IC228 permits the user to select from 4 fixed levels of backlighting.

There is no free lunch, and Icom fans had to give up something in exchange for the new control backlighting: the plastic front panel and tuning knob on IC228 feel chintzier than the metal panel and rubber padded knob on the IC28.

Another new feature is a "lock" pushbutton, which disables the radio's front panel controls. I haven't found this as useful as the lock slide switch on the DTMF up/down microphone. The up/down pushbuttons on the microphone can be bumped accidentally in the mobile environment, and the slide switch prevents unplanned frequency changes.

The IC228's scanning features are on par with, or slightly above those of other 2 meter transceivers, but not as well implemented as in "real" scanners. The IC228 scans at the same speed as the 28 - rather slowly. A reasonable memory scan, with channel lockout, is provided. This is an improvement over the early Kenwood TH-215 walkie-talkie memory scan, which lacked a lockout feature, so one was forced to scan ALL channels.

The timer operated scanning in the IC228 causes the radio to resume scanning 2 seconds after the carrier drops, or after 15 seconds - whichever occurs first. Too bad the IC228 lacks a carrier operated mode, like the feature in the Kenwood

Contributed by Pete Simpson, KA1AXY.